

WHAT IS CLAIMED IS:

1 (amended). An isolated nucleic acid coding for a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2 or a complement of said nucleic acid.

2 (amended). The isolated nucleic acid of claim 1 wherein said nucleic acid comprises the nucleotide sequence (a) set forth in SEQ ID NO:1, or (b) its complement.

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3 (amended). The isolated nucleic acid of claim 1 wherein said nucleic acid comprises the nucleotide sequence set forth in (a) SEQ ID NO:3, (b) SEQ ID NO:28, or (c) complements thereof.

10 (amended). A set of nucleic acid probes for use in a microchip assay wherein each of said nucleic acid probes comprises at least 8 contiguous nucleotides of a nucleic acid as claimed in claim 1 and said set encompasses part or all of said nucleic acid as claimed in claim 1.

11. A vector which comprises an isolated nucleic acid as claimed in claim 1.

12 (amended). An expression vector which comprises an isolated nucleic acid of claim 1 wherein said nucleic acid is operably linked to regulatory sequences which control expression of said nucleic acid in host cells for said vector.

13. Host cells transformed with a vector as claimed in claim 11.

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14 (amended). A method of producing a polypeptide of SEQ ID NO:2 which comprises (i) culturing host cells containing an expression vector encoding said polypeptide under conditions suitable for the production of said polypeptide and (ii) recovering said polypeptide.

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15 (amended). A method as claimed in claim 14 which further comprises labeling the polypeptide which is recovered.

25 (amended). A pair of single-stranded oligonucleotide primers for determination of a nucleotide sequence of SEQ ID NO: 1 by a nucleic acid amplification reaction, the sequence of said primers being 13 or more nucleotides long and identical or complementary to SEQ ID NO:1.

--61 (new). An isolated nucleic acid comprising SEQ ID NO:1 wherein a G is inserted between bases 1641 and 1642 or a complement of said nucleic acid.

--62 (new). An isolated nucleic acid comprising SEQ ID NO:3 wherein a G is inserted between bases 1691 and 1692 or a complement thereof.

--63 (new). An isolated nucleic acid comprising SEQ ID NO:28 wherein a G is inserted between bases 22292 and 22293 or a complement thereof.

--64 (new). A set of nucleic acid probes for use in a microchip assay wherein each of said nucleic acid probes comprises at least 8 contiguous nucleotides of a nucleic acid as claimed in claim 61 and said set encompasses part of or all of said nucleic acid as claimed in claim 61.

--65 (new). A set of nucleic acid probes for use in a microchip assay wherein each of said nucleic acid probes comprises at least 8 contiguous nucleotides of a nucleic acid as claimed in claim 62 and said set encompasses part of or all of said nucleic acid as claimed in claim 62.

--66 (new). A set of nucleic acid probes for use in a microchip assay wherein each of said nucleic acid probes comprises at least 8 contiguous nucleotides of a nucleic acid as claimed in claim 63 and said set encompasses part of or all of said nucleic acid as claimed in claim 63.

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--68 (new). A vector which comprises an isolated nucleic acid as claimed in claim 62.

--69 (new). A vector which comprises an isolated nucleic acid as claimed in claim 63.

--70 (new). An expression vector which comprises an isolated nucleic acid of claim 61 and said nucleic acid is operably linked to regulatory sequences which control expression of said nucleic acid in host cells for said vector.

--71 (new). An expression vector which comprises an isolated nucleic acid of claim 62 and said nucleic acid is operably linked to regulatory sequences which control expression of said nucleic acid in host cells for said vector.

--72 (new). An expression vector which comprises an isolated nucleic acid of claim 63 and said nucleic acid is operably linked to regulatory sequences which control expression of said nucleic acid in host cells for said vector.

--73 (new). Host cells transformed with a vector as claimed in claim 67.

--74 (new). Host cells transformed with a vector as claimed in claim 68.

--75 (new). Host cells transformed with a vector as claimed in claim 69.

--76 (new). A method of producing a polypeptide encoded by SEQ ID NO:1 comprising the mutation 1641 ins G which comprises (i) culturing host cells containing an expression vector encoding said polypeptide under conditions suitable for production of said polypeptide and (ii) recovering said polypeptide.

--77 (new). A method as claimed in claim 76 which further comprises labeling the polypeptide which is recovered.

--78 (new). A pair of single-stranded oligonucleotide primers for determination of a nucleotide sequence of SEQ ID NO:1, wherein SEQ ID NO:1 comprises the mutation 1641 ins G, by nucleic acid amplification reaction, the sequence of said primers being 13 or more nucleotides long and identical or complementary to SEQ ID NO:1 comprising the mutation 1641 ins G.